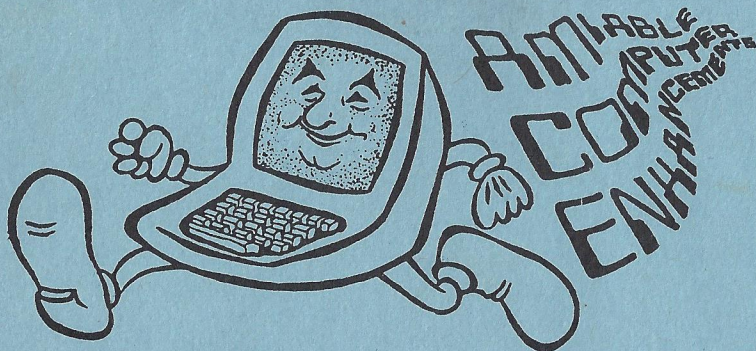
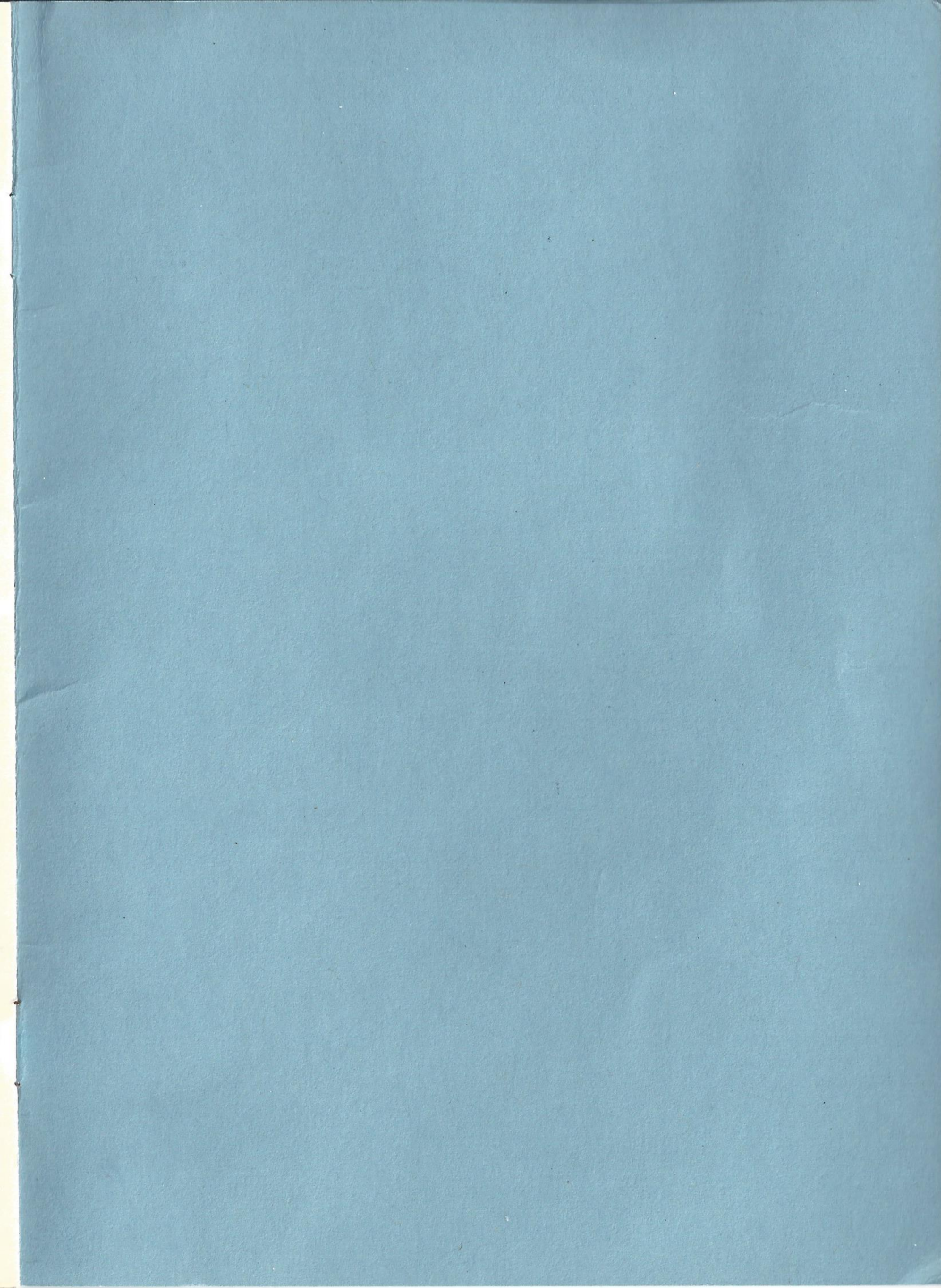


ACE 80

EIGHTY COLUMN
SCREEN DISPLAY
FOR
ATARI COMPUTERS





ACE-80 Eighty Column Display

by Claus Buchholz

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ACE-80 is a software-generated eighty column display device for Atari computers. It uses the Atari's own video hardware to display eighty remarkably legible characters across the screen. A monochrome monitor provides the clearest display, but ACE-80 is usable with color monitors and quality B&W and color TVs. ACE-80 provides an economical alternative to eighty column boards, which are available only for the Atari 800.

ACE-80 automatically installs itself in the Atari operating system in place of the E: and S: devices, the normal forty column screen editor and display. It uses about 12K of RAM when active but gives up that RAM when other screen modes are in use. The cartridge itself does not displace any RAM.

ACE-80 comes in two versions. ACE-80XL is a left cartridge that works in all Atari computers [400/600XL/800/800XL/1200XL/130XE] with at least 48K RAM. It can work with BASIC if BASIC is built into the machine [600XL/800XL/130XE models]. The right cartridge version, ACE-80, is only for the Atari 800. It allows BASIC to be available in the left slot.

When the computer powers up with ACE-80 installed, it immediately displays its title and waits for a key to be pressed. This gives you a chance to adjust the screen to your liking. The START and SELECT buttons, along with the SHIFT key, make the following adjustments:

START varies the brightness of the displayed characters.

SELECT varies the brightness of the background.

SHIFT-SELECT varies the background color. Use this to increase the readability on color displays.

SHIFT-START changes the cursor from flashing to steady or invisible.

When you've adjusted the display, press any key to boot the disk. The eighty column display remains active. It differs in minor ways from the normal screen editor. The maximum logical line length is eighty characters, so you cannot edit a line of more than eighty characters. To do so, you must return to the forty-column mode. In BASIC, GRAPHICS 16 or OPEN #6,12,0,"S:" reverts to 40 columns. To return to 80 columns, either GRAPHICS 0, OPEN #6,28,0,"S:" or OPEN #1,12,0,"E:" can be used.

All graphics commands work as usual in eighty column mode except the DRAWTO and FILL commands. All editing and cursor control keys also operate, except clear tab and set tab. Tabs are permanently set at every eighth position. SETCOLOR and most POKES, such as cursor enable

and left and right margins, work as well. All other graphics modes work normally.

ACE-80's cursor is only visible when the screen editor is waiting for a keypress. To enable the cursor at other times, use POKE 54286,192. Be sure to turn it off with POKE 54286,64 before doing any I/O with external devices such as the disk or printer.

ACE-80 is not disturbed by a RESET warmstart, but it disappears if the computer performs a coldstart without being turned off

first. So, to coldstart or reboot the computer with ACE-80 active, turn it off for a few seconds and then turn it back on. Some programs designed to work under forty columns may not operate in eighty. There are several possible sources of incompatibility. Programs that do not use the operating system for screen I/O or that use custom displays will not work. Some programs may have conflicting memory demands. ACE-80 uses the top 12.5K of RAM as well as a few bytes at the bottom of page one. Some incompatible programs can be altered to work with ACE-80. Useful programs such as word processors really shine in eighty columns. Amiable will be providing fixes for several popular products. ACE-80 brings the Atari into a world of more powerful and professional applications.

ACE-80 and Your Favorite Program

ACE-80 works with most programs that access the screen through the Atari operating system. If your favorite program doesn't quite work and you're up to changing it, ACE will supply you with helpful patching information. Send \$3.00 to us for a copy of the ACE-80 Technical Notes.

LETTER PERFECT AND ACE-80/ACE-80XL Patching Process

This BASIC program patches Letter Perfect [ver.6.xx] to work with the ACE-80/ACE-80XL. Follow these steps to perform the patching process:

1. Make a backup copy of the Letter Perfect program disk using any duplicating utility [Letter Perfect has one built in].
2. Shut off computer, insert backup copy in diskdrive, and while holding down the ESC key, turn on the computer. This brings up the Video Control menu.
3. Press 2, and RETURN to select the Bit-3 option.
4. Continue as explained in the Letter Perfect "Configuring The Program" section of the manual. Remove the Letter Perfect disk when the configuration operation is complete.
5. Turn off the computer and insert the patch disk [see "Making a Patch disk" if you do not have one].
6. Insert the BASIC cartridge [800] or do not hold down OPTION [XL/XE]. Turn on the computer.
7. The message "Insert Backup copy of Letter Perfect 6.xx in Drive 1 and Press RETURN" will appear on your screen.
8. Remove the Patch disk, insert the backup copy of Letter Perfect, and press RETURN. The patch program will write a patch to the Letter Perfect disk. This is a one-time process. The Letter Perfect disk can be reconfigured by itself from now on.

9. Leave the Letter Perfect disk in, shut off the computer, and insert the ACE-80/ACE-80XL cartridge. Remove the BASIC cartridge [800] or hold down OPTION [XL/XE] and turn on the computer. The ACE screen will appear. Adjust the display [Try pressing SELECT 5 times, and START 3 times and adjusting the brightness of the screen].

10. Press the SPACE bar to boot Letter Perfect.

Making a Patch Disk

1. At step 5 of "Patching Process", insert a disk with DOS on it and a BASIC cartridge [800], or do not hold down the OPTION key [XL/XE].

2. Type in the Patch Program.

3. Type: SAVE "D1:LPPATCH.BAS" and press RETURN. This will save the program.

4. Type: RUN and press RETURN.

5. Proceed to step 6 of the "Patching Process".

```
0 Rem AMIABLE COMPUTER ENHANCEMENTS
1 Rem PATCH PROGRAM
2 Rem FOR LETTER PERFECT & ACE-80(XL)
3 Rem 05/20/85
4 Rem Make sure you are using a fresh
5 Rem backup copy of Letter Perfect,
6 Rem Ver 6.00-6.05 installed for the
7 Rem Bit-3 80 column board.
10 Graphics 0:Tape 30
20 Read D:S=S+D:Goto 20
30 If S<>16008 Then ? "Error in DATA sta
tements.":End
70 ? :? "Insert BACKUP copy of Letter Pe
rfect "
75 ? "6.xx into drive 1 and press RETURN
."
```

```

80 Open #1,4,0,"K":Get #1,D:Close #1
90 Dsk=1536:Buf=1664
100 Data 104,104,104,141,2,3,104,104,141
,1,3,104,141,5,3,104,141,4,3,104,141,11,
3,104
101 Data 141,10,3,32,83,228,132,212,160,
0,132,213,96
110 Restore 100: For I=Dsk To Dsk+36:Re
ad D:Poke I,D:Next I
120 For S=0 To 3
130 Y=Usr(Dsk,Asc("R"),1,Buf,98+S):If
Y>1 Then 220
140 Restore 900+10*S
150 Read Ad:If Ad<0 Then 190
160 Read N: For I=Buf+Ad To Buf+Ad+N-
1
170 Read D:Poke I,D:Next I
180 Goto 150
190 Y=Usr(Dsk,Asc("W"),1,Buf,98+S):If
Y>1 Then 220
200 Next S
210 ? :? "Patch complete.":End
220 ? :? "Disk error #":Y:End
900 Data 4,1,136,7,2,138,7,25,4,162,141,
234,234,31,3,162,80,234,-1
910 Data 9,20,96,32,15,148,164,209,196,2
08,240,247,160,32,140,35,1,164,209,76,24
8,29
912 Data 44,13,169,1,32,9,148,169,1,32,1
2,148,76,133,7,120,1,32,-1
920 Data 91,2,198,8,95,17,132,101,72,165
,100,32,3,148,162,0,104,32,6,148,164,101
,96,-1
930 Data 8,15,169,192,208,2,169,64,141,1
4,212,169,0,141,17,208,96
931 Data 23,20,32,0,148,32,140,8,165,9,9
,2,133,9,234,234,234,234,234,234,162,0
932 Data 70,11,173,28,2,240,3,206,28,2,7
6,98,228,101,1,96,-1

```

Ambiable Computer Enhancements
P.O. Box 443
Holt, Michigan 48842

ACE-80 Screen Setup Program For BASIC

This program will create an AUTORUN.SYS file that will automatically load and setup the screen for you when you are in the BASIC mode. Take the following steps to create the AUTORUN.SYS.

1. Insert your ACE-80[XL] cartridge into computer (and BASIC).
2. Turn on computer.
3. Press the SELECT and START keys to set the screen display to your liking.
4. Insert a disk with DOS on it into your diskdrive.
5. Press any key to boot disk (which will return you to BASIC).
6. Insert the disk (Patch disk) with SETUP.BAS on it in your diskdrive.
7. Type: RUN "D1:SETUP.BAS" and press RETURN
8. Remove that disk, and reinsert the disk with DOS on it (that you want to use as a boot up disk for BASIC).
9. Hit any key to write the AUTORUN.SYS file.
10. "FINISHED" should appear and you may now use this disk when using BASIC.

```

0 Rem **      AMIABLE COMPUTER ENHANCEMENTS      **
1 Rem ** SET UP PROGRAM FOR ACE 80 & ACE 80XL **
2 Rem **                               02/16/86 REV 000 **
10 Graphics 0
20 Print "You must have already set up the screen display to your liking"
30 Print "with the START & SELECT keys before you run this program..."
40 Print "Hit any key to continue..."
50 Gosub 300
100 C=Peek(288):B=Peek(289):F=Peek(290)
110 ? :? :? "WORKING..."
120 Open #1,8,0,"D:AUTORUN.SYS"
130   For N=1 To 6:Read A:Put #1,A:Next N
140 Put #1,C:Put #1,B:Put #1,F
150   For N=1 To 4:Read A:Put #1,A:Next N
160   For N=1 To 42:Read A:Put #1,A:Next N
170   For N=1 To 6:Read A:Put #1,A:Next N
180 ? :? :? :? "FINISHED...":? :?
190 End
300 Poke 764,255
310 IF Peek(764)=255 Then 310
320 Poke 764,255:Return
1000 Data 255,255,32,1,34,1
1010 Data 00,64,41,64
1020 Data 162,96,169,12,157,66,3,32
1030 Data 86,228,169,3,157,66,3,169
1040 Data 39,157,68,3,169,64,157,69
1050 Data 3,169,28,157,74,3,169,0
1060 Data 157,75,3,32,86,228,96,69
1070 Data 58,155
1080 Data 226,2,227,2,0,64

```

TERM80

TERM80 is a simple modem program that was created initially as a demo. It will only work with 850 compatible modems and will only toggle the Translation [ASCII and ATASCII], Duplex [Full and Half], and Line Feed. It is a bare bones program. To use, you must boot the RS-232 handler with an AUTORUN.SYS then RUN "D1:TERM80.BAS". This is done with the ACE80(XL) cartridge and BASIC installed. Press CTRL-O to bring up the option menu and press the first letter of the option to toggle it. Dial the phone number manually and press RETURN when a carrier is detected.

ACE-80 and OS/A+

The OS/A+ disk operating system [version 2.10] interferes with the ACE-80's ability to survive a system reset. To correct this, RUN "D:OSAPLUS.FIX" on the patch disk and follow the prompts of the program to patch OS/A+ on all your working disks.

ACE-80 and EASMD

If you use OSS's early assembler, EASMD.COM, it must be slightly changed to load under ACE-80. RUN "D:EASMD.FIX" on the patch disk to patch it for you.

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P.O. Box 443
Holt, Michigan 48842

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